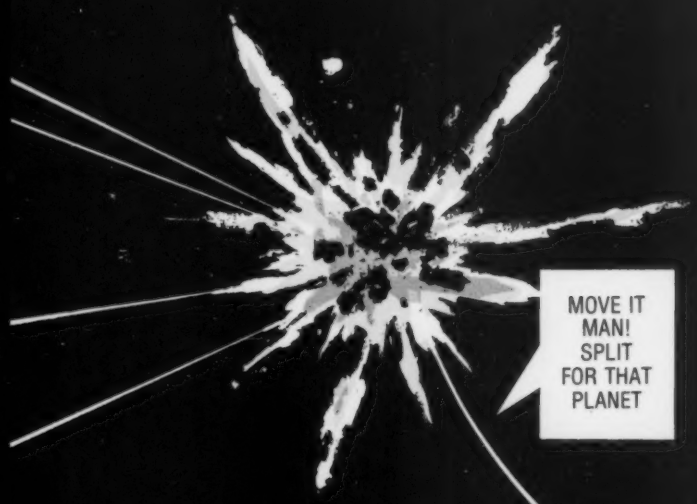
DRIVER

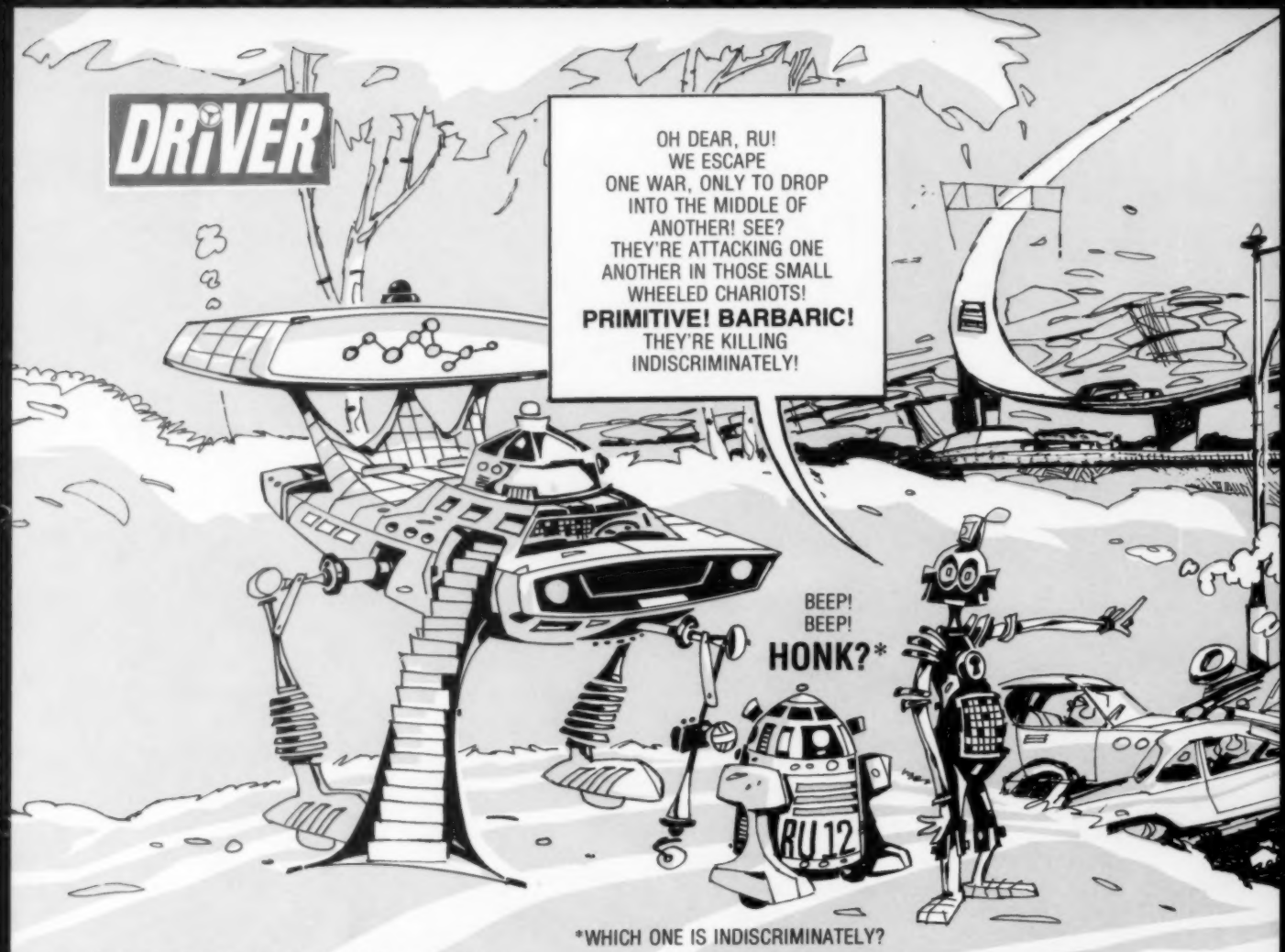
FEBRUARY 1978



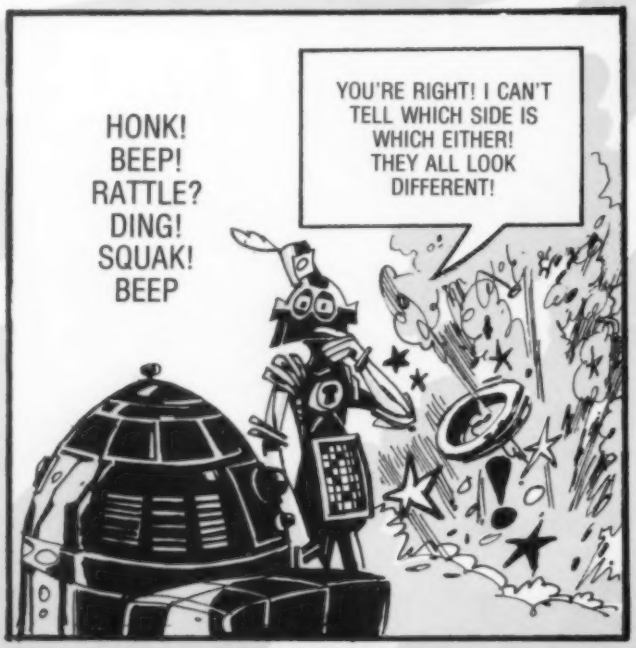
CAR WARS

continued on next page

FOLD OUT COVER FOR THE **BIG** PICTURE


DRiVER
OH DEAR, RU! WE ESCAPE ONE WAR, ONLY TO DROP INTO THE MIDDLE OF ANOTHER! SEE? THEY'RE ATTACKING ONE ANOTHER IN THOSE SMALL WHEELED CHARIOTS! PRIMITIVE! BARBARIC! THEY'RE KILLING INDISCRIMINATELY!
BEEP! BEEP! HONK?*
RU 12
*WHICH ONE IS INDISCRIMINATELY?

Note: This item is all in the interest of fun—and safety.
We apologize to R2-D2 and his friends.



REBEL
PON
TRUCKIN
INC.
KELLEHER
55
(WHEEZE)
THESE PEOPLE SEEM
TO HAVE MADE
ZAPPING INTO SOME
KIND OF (WHOOSH) SPORT.
I MUST (WHEEZE)
REPORT THIS TO THE
(WHOOSH)
IMPERIAL COMMAND PLACE.
Death Raider zooms by overhead
WHEEZE!
(IN GOES THE GOOD AIR)
WHOOSH!
(OUT GOES THE BAD AIR)
STOP
continue
BEEP?
THAT'S A GOOD QUESTION RU.
WHERE ARE LEMANS SOLO,
TOBACCO, THE COOKIE MONSTER,
YOUNG LEAK OILFILTER,
WISE OLD OBI-WAN KAWASAKI
AND THE PRINCESS LEYLAND?

DRIVER

THE
TRAFFIC SAFETY MAGAZINE
FOR THE MILITARY DRIVER

DEPARTMENT OF THE AIR FORCE
HQ AIR FORCE INSPECTION AND SAFETY CENTER
Norton Air Force Base, California 92409

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PUBLISHED MONTHLY IN COOPERATION
WITH
THE DEPARTMENT OF THE ARMY
AND
THE DEPARTMENT OF THE NAVY

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AFRP 127-1
Entered as a Controlled Circulation Rate
Publication (USPS No. 335490)
at Santa Ana, CA 92711

SUBSCRIPTION—DRIVER is available on subscription for $10.00 per year domestic (90¢ per copy); $12.50 per year for foreign mailing ($1.20 per copy), through the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Back issues are not available. Changes in subscription mailings should be sent to the above address. Use of funds for printing this publication has been approved by Headquarters, United States Air Force, Department of Defense, Washington, D.C. No payment can be made for manuscripts submitted for publication. Contributions are welcomed, as are comments and criticism. Address all correspondence to the Editor, DRIVER Magazine, AFISC/SEDD, Norton AFB, CA 92409.

ATTENTION DEPT OF THE NAVY PERSONNEL: Address all queries concerning distribution to NAVSAFECEN, NAS, NORFOLK, VA 23511, Attn: Safety Publications Dept. All other correspondence will be welcomed by the Editor.

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FEB

VOLUME 11 NUMBER 9

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THE EDITOR SPEAKS
DOUBLE CLUTCH

THE DEADLY GAS

Although we frequently warn readers about the dangers of carbon monoxide poisoning, we seldom have covered the rules for treating a person who has been exposed to the deadly, odorless gas.

Headache and drowsiness are the common early symptoms of poisoning, whether from a faulty furnace or car exhaust. Other symptoms include muscle twitching, fast pounding pulse, throbbing in the temples, labored breathing, and dilated pupils. In later stages the skin may turn darker than normal and the lips blue. Paralysis and coma may follow.

The symptoms don't have to be dramatic; a low level of exposure over a long period can create serious problems.

The general rule is to keep the victim quiet and warm and, of course, removed from the source of the gas. He should be covered with blankets over and under, but not so far as to hinder breathing. If breathing has stopped, mouth-to-mouth resuscitation should be used. Medical help should be summoned quickly so that a supply of pure oxygen can be made available. Pneumonia is a common complication.

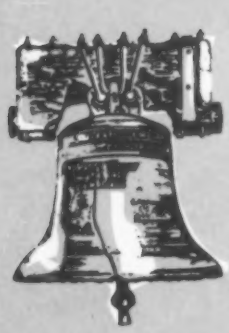
Carbon monoxide is released when any material is not burned completely. Beware of gasoline, natural gas, or any other fuel. The gas is dangerous because its molecules attach easily to blood cells, depriving them of needed oxygen.

Keep your car's exhaust system in good condition. Crack a window when you're driving. Beware of heaters and wall furnaces, especially in bedrooms. They should be inspected to insure that combustion is complete.

HERE THEY ARE, SEARCHING FOR THE LOST ANDROIDS!
LOOK, LEAK, THEY'RE GLIDING THEIR CHARIOTS ON A THIN FILM OF WATER!
YEAH, AND DOING A BAD JOB OF IT! THEY KEEP HITTING EACH OTHER.
MEOW
IT'S A BATTLE GUYS . . . THE 'DROIDS WON'T BE AROUND HERE
THEY'LL BE RUSTED OUT IF THEY ARE.
CRASH!
SLIPPERY WHEN WET
continue
I CAN'T PILOT WITHOUT SENSORS IN THIS FOG, GUYS, SO I'M SURE THE CHARIOT DRIVERS CAN'T SEE ANYTHING EITHER
BUT THEY'RE STILL FIGHTING
CRAZY PLANET
MEOW
CRUNCH!

WHEEZE!
WHOOSH!
THE CHARIOTS ARE MASSING FOR AN ATTACK! THOUSANDS WILL BE WASTED!
BEEP! BEEPADEE-BEEP!
CUSS!
Honk
HONK!
!OOOGAH!
HONK!
ONLY BIKE
WHOOSH
WHEEZE
ALL RIGHT, CREEP! YOU OFF-ROADERS CAN'T BRING YOUR DUNE BUGGIES INTO THE CITY WITHOUT A PROPER LICENSE. I'M CITING YOU FOR PARKING BY THIS HYDRANT.
YER UNDER ARREST FOR ASSAULTING AN OFFICER!
YOU MEDDLING FOOL! THEY'RE GETTING AWAY!
MEANWHILE, IN DEFORDE FALCON:
IT'S A WAR, ALL RIGHT! LOOK AT THE DESTROYED CHARIOTS
SENSELESS! . . . A PRIMITIVE TRIBAL ZAP RITE.
SEE HOW THE ONES WHO WEAR A HARNESS AREN'T ZAPPED SO EASILY.
YES. THE HARNESSES HELP THE FORCE PROTECT THEM.
HEY, GUYS, I SEE THE 'DROIDS! LAND THIS THING!
MEOW
JUNK CARS
TOP DOLLAR FOR YOUR OLD WRECK
JOE's JUNK
NEVER-USED SEATBELTS

BAR
YOU'RE IN NO SHAPE TO DRIVE, WALT.
S'AWRIGHT. I GOTTA GET HOME.
HE DAMAGED THOSE CHARIOTS SO HE CAN'T BE FOLLOWED. BUT IS HE ALL RIGHT? HE'S NOT PILOTING TOO WELL.
I FEAR HE MAY— GAD! HE'S STARTED A NEW BATTLE!
SHIFT-GRIND! SHIFT-GRIND! ZOOM!
BEND! CRUCH TINKLE! TINKLE!
DEATH RAIDER'S HERE, MASTER LEAK! LET'S FLEE BEFORE HE FINDS US AGAIN!
HEY LADY, WHERE'S THE SLOT IN THIS MAIL BOX?
MEOW
IT'S EITHER RAIDER OR THOSE ZAPEES IN THEIR CHARIOTS! **COME ON! LET'S GET OUTTA HERE!**
MEOW
THOSE CHARIOT DRIVERS ARE MORE BRUTAL THAN THE GALACTIC EMPIRE. I'D RATHER TAKE ON DEATH RAIDER ANY OLD TIME. RIGHT, TOBACCO?
MEOW
WHEEZE! WHOOSH!
BEEP! BEEP!*
defordefalcon
* FASTEN YOUR SEAT BELTS



(right)
So your '47 Hudson Pick-up wasn't exactly a big seller? Just because the transportation of your choice is a bit "rare" doesn't mean you have to give it up when it wears out!

The '62 Ferrari GTO in the rear and the '55 121 LM Ferrari in the front are desirable cars for some of us. But, frankly, dealers can be a bit hard to find. Where do you get parts? Read the article to find out.

Rolls Royce Camargue now costs over $100,000 . . . but even the rich cat who can afford it can have difficulty getting parts or service if he's not located near a dealer.

declaring INDEPENDENCE from a dealer

So you're stationed in the boondocks and your local Volkswagen dealer doesn't stock parts for your '47 Kubbelwagen? You say your nearest car dealer is 700 miles away? You think that 23 months is a little too long for your dealer to have that frizzet bearing on back-order . . . is that your problem, Bunky?

It would be hard for me to pass up an opportunity to buy a ZIL. *Zavod Imieni Likhatov* really knows how to make a car. It's the Russian Rolls Royce. Morgans are practically classics the day they roll out of the factory. The Lotus Europa is a car that I literally have dreams about. At the same time, I am not going to waste my time looking for the ZIL, Morgan or Lotus dealers' service departments in Rapid City, South Dakota, or in very many other cities, for that matter.

That does not mean, though, that only the owners of such unusual cars find themselves wanting or needing to be independent of a dealer. More than one person has gotten orders to West Posthole AFB only to discover after arriving that there are no dealers or factory-authorized service departments for a fairly common car within a hundred miles of West Posthole. Even more common is the case of the poor unfortunate who discovers that the one and only dealer for his car won't let his customers forget that he's got an exclusive on their business. Such situations are not that uncommon. That does not mean, however, that you have to submit to the whims of the local greasemonkey. Not only do you still have your full freedom of choice, but by owning that unusual car, you can become a better owner and driver than your Late-Model-Detroit-owning neighbor ever will be.

Where to go for info: To begin with, you'll need to know your car better than the average owner, and you'll learn how to do a lot of things by yourself that most people entrust to a dealer. Your neighbor might be able to limit his knowledge to glancing over a few pages of the owner's manual, but you can't. That's not a bad situation, though, because you'll be able to zoom past him in your still-healthy TR-2 when he's trying to trade in what has turned into a hunk of tired iron. There are two things that you will need: information and a supplier. Neither is really that difficult to find, if you are willing to do some looking. There are six places to look.

Just because your city doesn't have a dealer for your car, that doesn't mean there are no dealers. If all else fails, check the out-of-town papers at the local library. The really big cities will have at least one dealer for just about any car that is imported into this country, and occasionally someone who will specialize in cars that are no longer made. Also, many magazines and buyers' guides can give you this information.

If you can't find a dealer, there's always the importer. If your car was imported, somebody imported it. Here is another case where the library can help. Magazines with product reviews and buyers' guides written when your car was made will almost always carry at least the name of the importer. If the importer can't help you directly, there's a good chance that he can at least direct you to someone who can.

Don't forget the manufacturer. Assuming that the company is still in business, they can be very helpful. Particularly in the case of a make or model that is not ordinarily imported into the United States, this can be your best source. Some factories have earned particularly good reputations for their willingness to help owners from far away.

A club can be a tremendous help. Even if you have an excellent relationship with a factory, importer or dealer, joining a good club can be an excellent investment, because you will be joining together with others who own cars just like yours. In some cases, a club might be your only source for parts and information. Bear in mind, too, that a club of respectable size can be a very powerful lobby with suppliers. After all, what better way is there to convince a supplier that he should stock parts for your car than to show him how many others would like to buy them?

Don't forget the independent merchant. There are independent parts suppliers and independent repair shops. They make their money one of two ways: either by doing something that the factory-authorized people cannot or will not, or by doing it better.

If worse comes to worst, remember this: your car would have to be the only one of its kind for there not to be another one in a country the size of ours. Brokers who deal in unique cars might help. It might take a letter to the editors of some automotive magazines that sounds something like "Hey, all you Polo owners, let's get together." Somebody somewhere probably has a car like yours, and you have a common interest – enjoying a fine automobile that doesn't look just like every other one on the block. He or she has probably faced the same problems you are facing, and probably has found some answers.

What you'll need: Once you have your sources, stock up! You'll need the owner's manual, of course, but you'll also need a service manual – that big, thick book the factory publishes to tell

continued

by
Capt CAL LIPPITT
Ellsworth AFB, South Dakota

continued

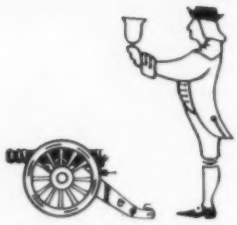
the dealers' mechanics how to fix your car. If you are fortunate, there may even be a commercial publication that can be even better than the factory book. What's the difference? The commercial publisher assumes you are not a dealer's mechanic. If Company Wrench Number Nine is nothing more than an ordinary 3/16 socket, the commercial book will say so. If you are planning on any long trips, by the way, take the service book with you. The mechanic at a local gas station may have never seen a car like yours before, but he may be able to do quite a lot for you, providing you can show him the book of instructions.

You also will need tools. If your car came with a tool kit, that can be a good start. Are they good enough so that you can trust them for hard work? Some may not be, and you don't need to learn about poor tools the hard way. Replace inferior tools with ones that you can trust, and check the service manual to find out which tools you will need that aren't in the kit. It is best not to accept substitutes for the proper tool for the job. Even in sizes, there are at least three systems that I know of: American, metric and Whitworth. Some cars are a mixture of all three. As far as special tools are concerned, you might as well have them, because few mechanics or Auto Hobby Shops will.

Where parts are concerned, there is always the question of what parts to have on hand. This is where knowledge of your car and membership in a club can pay off. Besides helping you overcome difficulties in getting parts, club members can advise you as to which parts are needed and which parts will be no problem. Also, knowledge of your car can solve many of these problems. Many of the more exotic car manufacturers, for instance, use other manufacturers' engines and transmissions. To know, for instance, that your Allard was built with a Cadillac engine and a Lincoln Zephyr transmission can make parts shopping somewhat easier and sometimes less expensive. There have even been cases where the same part for two different cars was exactly the same, but once the name of the car got attached to the part, the price sometimes changed based on how expensive the car was. This is not to say that this practice is common or universal, but it does happen.

By now, some of you are probably wondering if I am going to say that you should do all of your own mechanical work, when you think you aren't "mechanically inclined." Have you ever cooked something using a recipe? Have you ever built a model using the instructions that came with the kit? Have you ever done something using a book that told you how to do it? If your answer to any one of those questions is "yes," you've just passed the Cal Lippitt Mechanical Aptitude Test with flying colors! If you can select the

Simca Bertone Coupe is typical of a generation of spiffy little foreign sports cars that are no longer imported . . . but that's no reason not to have one if you want it. Clubs, individual enthusiasts, and original importers can all help put you on the track of hard-to-get parts.



Owning an older car, or one that's a bit rare, can be very inexpensive if you learn to do a bit of the work yourself. Your base auto hobby shop can help you avoid the clutches of Shylock's Auto Repair & Hock Shop.

Owning a rare car can have real benefits. Owners of the few Plymouth Superbirds and Charger Daytonas find that their cars appreciate in price each year, and yet mechanical parts are readily available.

This Blazer is a super off and on road vehicle, but if you live in New York City, chances are the local dealers won't stock too many of the body or driveline parts. What can you do if you still want a Blazer? Read the article!

Lessee . . . cost of a new engine, about $750 including some outside labor. Cost of a new car, from $3,000 up. Some of us will opt for the new engine. Price for the satisfaction you get from maintaining your own car is impossible to judge.

tool (usually based on a picture of the tool doing its work) and follow instructions, you have just about all of the talent you need. Start with the simpler operations, like changing the oil, lubricating the front end, etc. As you do these, you will get more familiar with the car and you can proceed to the more complicated tasks, which will not seem so complicated anymore.

If you really insist on somebody else doing the work, remember the independent repair shops. Ask around. If you have a local dealer, but you don't want to trust him with your car, there is probably somebody else who feels the same way. If there are enough people who feel the same way, there is probably an independent garage becoming wealthy because of a service department's lack of service. More than one independent has been heard to say something like, "The biggest dealership in this town couldn't do more for me if they were on my payroll." Remember: the independent makes his money by doing what somebody else is not doing.

At the same time, if the problem is the total lack of a nearby dealer rather than dissatisfaction with a dealer, there may be an independent serviceman to help. If you own the only Jaguar in town, you can probably get service from the same place that takes care of the town's only Jensen-Healey. Bear in mind, though, that there is nothing quite like the satisfaction of doing the job yourself. In fact, the satisfaction of doing your own work is exceeded only in the confidence you have in knowing that, because you did do it yourself, it was done right.

Once these matters are taken care of, you will discover that owning a car gets to be more fun the more independent you are of dealer service departments. You can go on long trips without being afraid of a breakdown out of towtruck range of a dealer. Even if you enjoy going to a really good dealer, you will be able to tell the mechanic what's wrong rather than having to explain what makes you think that something is wrong. You will know your car, and it will last longer as a result. You can have the freedom to own any car you choose. If you choose to own a car that is really unique, you'll discover how much fun just driving it can be. Best of all, though, you will be able to know that your car is really your car, and it's yours for more reasons than the mere fact that your name is on the pink slip.

Seeing for SAFE Driving

by CHARLES RAY
Ft. Bragg, North Carolina

What is the most important physical asset to good driving?

If you answered good eyesight, you're right on. Although an intelligent mind and a sound body both contribute greatly to our driving ability, 90% of the information we receive concerning the traffic scene comes through the eyes. Without a clear picture, accident-free driving is next to impossible.

Skill, attitude, and physical coordination play major roles in determining how safe a driver one is. But it is vision that helps the driver determine his position on the road, relative speeds of other vehicles, location of hazards, information on road signs and signals, and enables the driver to compensate for the effects of rain, fog, snow, and other impediments.

While improper vision is probably responsible for many accidents, and is much discussed among traffic safety specialists, it is seldom listed as the cause of a specific traffic accident.

A young dependent wife on one of the Army's largest installations provides an example. Driving on the post on a sunny day, she collided with another car at one of the main intersections. Because it was an uncontrolled intersection, and her car was making a turn at the time of the collision, the young woman was charged with "failing to yield while making a turn." While the MPs sympathized with her claim that she could not see the other car, their reporting forms had no provision for reporting bad eyesight as a specific factor in the accident.

Good vision for driving is more than simply being able to see. There are several factors that make up the ability to "see" safely.

The first factor, and the one given the most emphasis in driver testing, is visual acuity. Visual acuity is simply the ability to see clearly. This is necessary to the reading and interpretation of road signs and the early detection of obstacles that can cause hazards to driving. Good acuity allows a driver to react to hazards. Without it, obstacles must be closer before the driver can interpret and enact them. The greater the driving speed, the less time there will be for a safe reaction. A person with 20/20 visual acuity driving at 55 mph has approximately four seconds to read a sign with six-inch-letters. With 20/40 vision, reaction time drops to around two seconds simply because he cannot determine the meaning of the sign as quickly.

Another important element in driving vision is depth perception, or the ability to judge the relative distance between objects or between yourself and another object, especially when both are moving. Depth perception is essential for parking and for passing or moving from one lane to another among moving traffic. If you've ever tried to pass two cars and found yourself with the choice of squeezing between them, dropping back, or rushing ahead and facing the possibility of a head-on collision with an approaching car, you know the importance of depth perception.

Every athlete knows how important peripheral vision can be. A quarterback who is unable to see the action to each side as well as to his front will find himself sacked an unhealthy number of times.

The ability to "see out of the corner of your eye" plays a big role in safe driving also. But the stakes are much higher than any touchdown.

The ability to distinguish colors and tell one color from another might not seem to be important to drivers, but think of the important role color plays in directional and warning signs. Color vision defects can be hazardous because of the possibility of confusing the red, green and amber of stop lights, or insensitivity to the red of warning lights.

People who design traffic lights have taken color deficiency problems into account, so that signals have yellow in the red and blue in the green to help in identification. Fully color-blind drivers can become very good at determining quite minor differences in intensity, and so they can function well in a color world. But this is a compensation and must be learned by the afflicted driver.

Visual acuity, depth perception, peripheral vision and color perception – all human factors and all important to the ability to drive safely on today's crowded, high-speed roadways. It is an individual responsibility to correct, or have corrected, any deficiencies that exist in any of these. The driver must

continued

The safety-minded motorcyclist wears goggles equipped with impact-resistant lenses to protect his eyes from environmental eye hazards such as dust, dirt, gravel and rocks. Optometrists can provide goggles with prescription lenses, if the cyclist needs a vision correction. There are also goggles which fit over eyeglasses. *Doctors of optometry advise that motorcyclists should wear industrial safety lenses which have a 3mm thickness at the thinnest point. The impact-resistant lenses prescribed for almost all eyeglasses today to meet U.S. Food and Drug Administration requirements are not as thick and do not offer sufficient protection for cyclists.*

Decorating a motorcycle with reflective tape is an important safety factor, optometrists say, because it increases the visibility of the cycle to other drivers on the road, particularly at night. According to the American Optometric Association, one major cause of motorcycle accidents involving other vehicles is that other drivers cannot see the motorcycle.

at least be aware of deficiencies to allow for compensation.

It is equally important to be aware of external factors affecting the ability to see safely. Alcohol figures in over 50 percent of the traffic fatalities reported in the United States.

Alcohol affects vision in several ways, all bad. Because it relaxes muscles, it affects the eye muscles we control and also the ones we don't. For instance, relaxed muscles account for that unpleasant – and hazardous – "double vision"; both eyes aren't focused on the same point.

Because alcohol reduces the supply of oxygen in the bloodstream (as does smoking), it also disturbs the parts of the eye which send the picture from the back of the eye to the brain. Result: fuzzy pictures.

Alcohol also affects one's ability to judge distance, reduces peripheral vision, and reduces night vision. With regard to night vision, recent studies show that a blood-alcohol concentration of 0.12% reduces the distance a pedestrian can be seen by a drinking driver at night by about 20%. This is enough to make the visibility distance much less than the stopping distance.

Smoking also can hamper the ability to drive. The most obvious way is by diverting the driver's attention when he reaches for the ash tray or lighter or fumbles for another smoke from an elusive pack. A fallen ember or hot ash can cause as much excitement in a car as a swarm of hornets. A second effect is the body's response to nicotine intake. Small doses of nicotine act as a stimulant, but larger amounts can act as a poison. Third is the absorption of carbon monoxide from smoking which ties up needed hemoglobin from the blood. This interferes with the transfer of oxygen to the brain and eyes. The fourth danger of smoking is the deposit of substances from smoke on the windows of the car. These deposits increase glare at night, and during the day they create a veiling haze over the road scene. In winter the smoke from one cigarette is enough to create a vision hazard.

The use of drugs, legal and illegal, plays an increasing part in the lives of many Americans. The effects on vision depend largely on the type drug involved. Many drugs, when combined or mixed with alcohol or tobacco, create a greater hazard than that produced by the drug alone. When on medication, always ask your doctor about the possible effects of the drug on driving.

Two other factors that adversely affect the ability to see are fatigue and age. So far as age is concerned, however, it is important to point out again that experience and attitude can make up for some physical deficiencies. The highest accident rates are among the 18-to-25 year olds, and this group far and away has the best vision of any group on the highway. The insurance companies' 35-60-year old favorites, who have low accident rates, are in many cases suffering varying degrees of visual deficiencies.

Changes in vision take place over a long period of time and can go unnoticed. Regular examinations by a vision specialist are one way to protect your eyesight and your driving record.

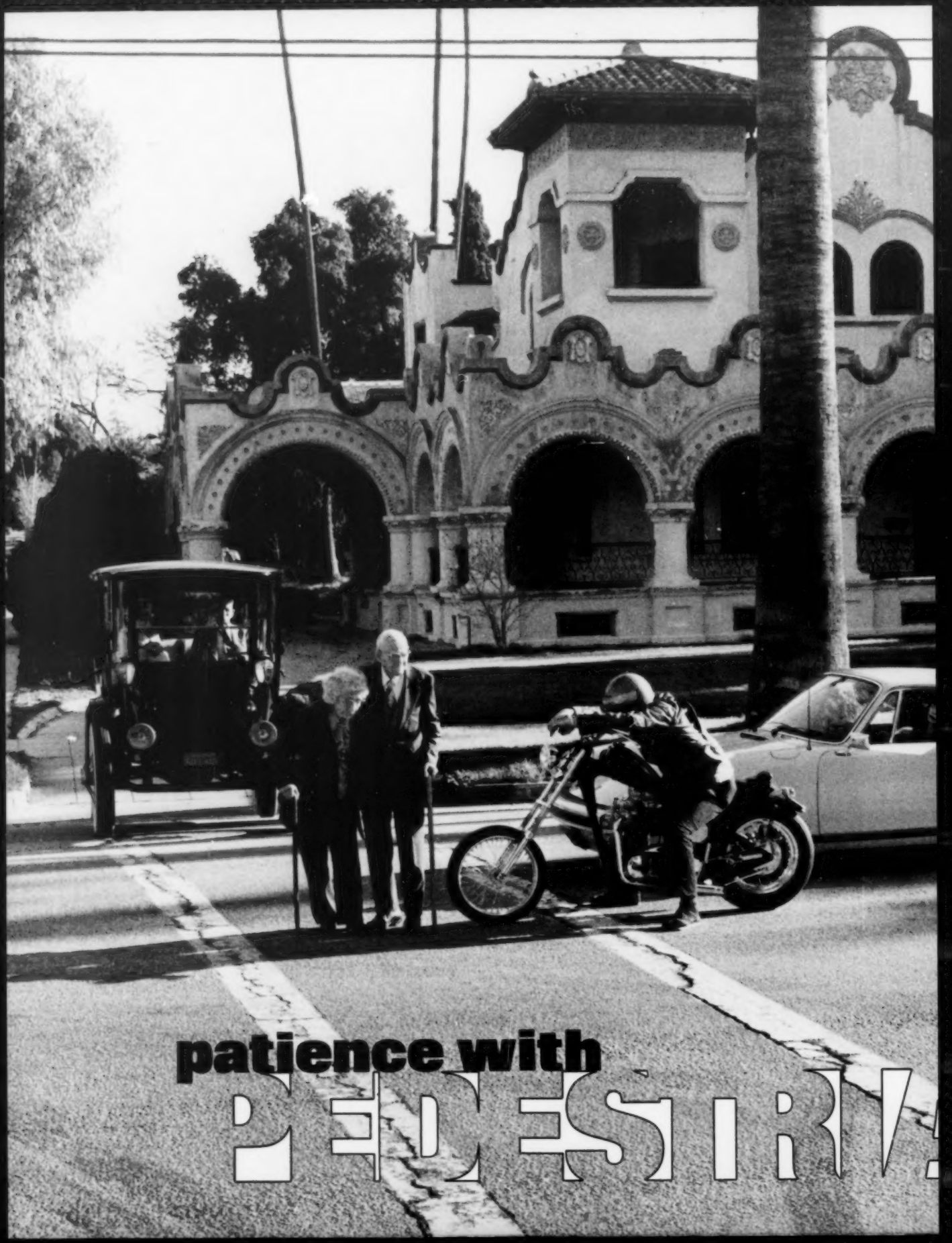
The moderately nearsighted person would see a scene this way. Many times a child's behavior causes myopia (nearsightedness) to be discovered by observant parents, teachers or school nurses. In children, squinting or narrowing of the eyelids is a common sign of myopia. Sitting much too close to the television set, declining school grades, and lack of interest in outdoor activities are other indications. Some doctors of optometry have noted that nearsighted children often do well with close work in school and are classified as good readers, yet they have difficulty seeing the chalk board.

This photo depicts how a scene would look to a person with severe double vision. When a person notices that he is "seeing double," he should seek a professional vision examination and the advice of his doctor of optometry.

The severely nearsighted person exists in a very fuzzy environment. There are many theories about the causes of myopia but the cause is not known for certain. Doctors of optometry care for myopia through the prescribing of corrective lenses, preventive lenses, special bifocals, contact lenses and/or vision training. Variations in methods of care may be related not only to the apparent cause of the myopia but also to the professional objectives of the optometrist, whether they be correction, prevention or control.

This photo depicts the appearance of a scene to a person who is moderately farsighted. Note that the car and its license plate are blurred, while the building and the trees at a distance are clear. The farsighted person's vision is better adapted to far than near. He involuntarily and constantly maintains a focusing effort to keep clear vision when looking at a distance, and an even greater effort for clear vision in reading and close seeing. This effort may cause fatigue, tension and discomfort. Hyperopia (farsightedness) can best be detected and evaluated during a complete vision examination and analysis. Doctors of optometry may prescribe eyeglasses, contact lenses, and/or vision training in the care of hyperopia.

All photos produced for the American Optometric Association by the Polaroid Corporation.


patience with
PEDESTRI

Think "traffic accident" and what comes to your mind? A car hitting another car? A car going off the road and striking a fixed object? Probably.

How about a car hitting a human being? Probably not. We're drivers. We're motorcyclists. We're car poolers or bus commuters. The fact that we are pedestrians – even if we walk no farther than from the car to the work area – seldom occurs to us.

So it may be a bit surprising to hear that 17 of every 100 persons killed in traffic accidents are pedestrians. That's in the nation as a whole. In big cities, pedestrians account for about half of the traffic fatalities. In New York City, it's 56%.

Drivers between 17 and 19 are greatly over-represented in pedestrian accidents. That is, they strike more people with their vehicles than older drivers do. (About twice as many as would be expected from their numbers.) There are probably two reasons for this. First, the younger driver has not always had the opportunity to acquire much experience in city traffic, where most pedestrian fatalities occur. And second, in at least half such accidents the pedestrian himself made some error that contributed to the accident. A young driver, while doing exactly what he should on the street and committing no error himself, may not yet have learned that he must keep sharp watch for pedestrian errors. Super alertness and super patience are required of the one behind the wheel when pedestrians are around.

The box on page 16 shows the six ways that more than half of all urban pedestrian accidents happen. Look them over and you will see why children under six and senior citizens are particularly vulnerable to being struck.

Children: In the last 10 years, over 10,000 children from one to six were killed in pedestrian accidents. About 30,000 a year are injured. (Notice these figures do not include children as passengers.)

Pedestrian accidents involving children frequently involve dartout. A child suddenly appears in the roadway, on a collision course with a vehicle. Neither the driver nor the child is aware of the other. Most dartout accidents occur on residential streets with low traffic volume. Usually the child is running and looking straight ahead. The vehicle is a car traveling straight ahead at less than 30 mph.

The driver must not think of the child pedestrian as a miniature adult. Young children don't see traffic patterns as adults do, and not just because their eye levels are only 36-40 inches from the ground. It is also because their perception abilities are not fully developed. Focusing and perception are less rapid and precise than in adults. Sometimes it seems that children see only a blur, and at other times they seem to focus on only one small aspect of a total picture.

As a result of their inability to deal with multiple things in the environment, they typically think of one thing at a time, and their thinking concerns what they want at the moment rather than logical reasoning. Educators tell us that a child under six probably cannot understand the true meaning of danger, and that a child must be about five before he can cope with such things as traffic lights.

Good drivers not only slow down when passing children at play but also cover the brake pedal with their foot to cut down on stopping time if a stop becomes necessary. The real threat, of course, is not the child you see but the one you don't. Watch for clues to a child's presence: toys on the roadside, balls in the street, romping dogs.

Older Persons: In big cities, almost half the pedestrian fatalities are senior citizens. This is a startling fact since persons 65 and over usually account for only about 10% of a metropolitan population.

No doubt one of the problems here is that the electronic signal simply doesn't allow enough time for a slower-moving person to completely cross the intersection before the light changes. Another factor is that many older people no longer driver, perhaps never have. They do not know the limitations of the driver or his vehicle when it comes to things like reaction time and braking.

Some old people do not know how to use pedestrian crosswalks. Signs

continued

The drivers and cyclist here may feel frustration at the delay, but they're exhibiting a very important virtue—patience with pedestrians. Now if the cyclist had just stopped outside the crosswalk marking . . .

patience with pedestrians

continued

such as Walk/Don't Walk combined with red, yellow and green lights and arrows do not present clearly the information they need: Do I have time to cross? Is it time to cross now?

It is never a good idea for a driver to try to beat the yellow or to jump the green. When pedestrians are present, the good driver will not only wait for the proper light but will also scan the intersection for stragglers on foot before proceeding.

Alcohol: Is alcohol a pedestrian problem? In some areas, yes. For example, 58 (out of 120 total) pedestrians killed in Minnesota in 1976 were tested for blood-alcohol content (BAC). Twenty-five had alcohol in their systems and 22 had BAC levels above the Minnesota legal limit for drivers.

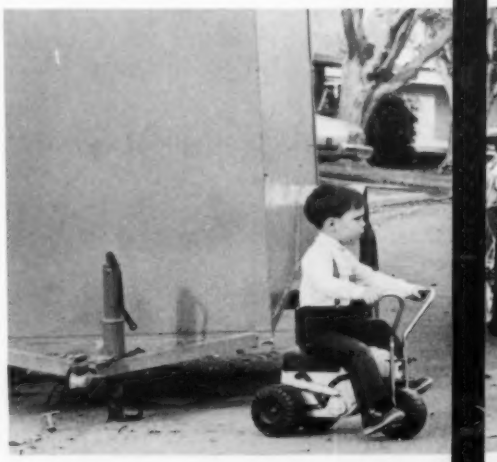
Beginning this research, we expected to find these were skid row winos walking the streets of big cities. To our surprise, we found that about one-third of the pedestrians with alcohol in their bodies at the time of accident were between 16 and 20 years old – hardly skid row derelicts. So another important fact for the driver to remember is that those pedestrians in the crosswalk ahead just could be under the influence of something other than chocolate malts.

One of the solutions to the pedestrian problem has been the creation of downtown "walking malls," where motor vehicles are forbidden. But that's a limited kind of solution. Clearly, there's always going to be a traffic mix that includes people in vehicles and people on foot.

Education is not really much help for the two most vulnerable groups, the very young and the very old. And engineering solutions, such as overstreet walkways, are expensive and slow in coming. So for the present time, it is the driver who can do the most to protect the pedestrian. Rules for the driver are simple: Be alert. Be patient.

The 1916 Detroit Electric in our lead photo was loaned to us by Curtis Allen and is being driven by Alvin Billarial with Blanche Van Sicklin. Donald Taylor is fuming on the cycle and Jan Eberlan is bored in her Porsche. Pedestrians are Catherine M'Ginnes and Fred Conley. A great cast!

Our thanks to C.G. Herrera and Lloyd Quarles of the Redlands, Calif., Police Department for providing traffic control and other invaluable assistance. Incidentally, the Holt House in the background dates from 1903 and is rumored to have a complete bowling alley in the basement. Those were the days!



PEDESTRIAN ACCIDENTS

How They Happen

DARTOUT—A person appears suddenly from the roadside, normally some distance from an intersection. Quick appearance and brief time exposure are critical factors. Usually, the victim runs from between parked cars, looks straight ahead, and is struck. The driver, traveling at a legal and normal speed, does not see the person in time to stop.

INTERSECTION DASH—Similar to the Dartout, this type of accident occurs in or near a marked or unmarked intersection crosswalk. A person runs across the intersection, is seen too late by the driver, and is struck.

VEHICLE TURN/MERGE—A driver is turning into or merging with traffic. The driver's attention is centered on vehicle traffic heading in one direction. A pedestrian, approaching from a different direction and unseen by the driver, is struck. A critical feature is that the attention conflict is built into the situation. For example, the driver is stopped and directing his attention left, looking for an acceptable gap for him to turn right and enter the cross street. When he finds the gap, he starts the turn without looking for pedestrians.

BUS-STOP RELATED—A Bus has stopped to discharge passengers. A person begins to cross the road in front of the bus and is struck by a vehicle in another traffic lane.

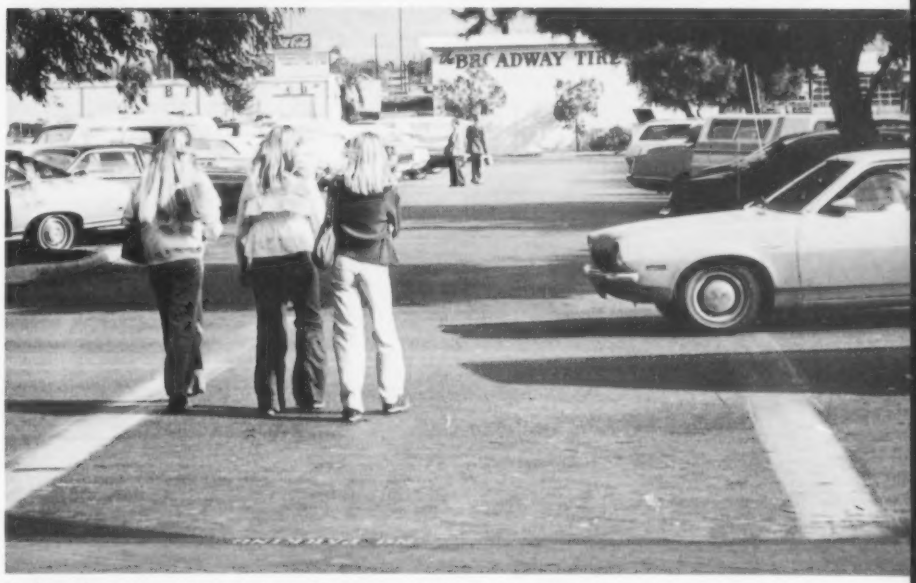
Where did that little fellow come from? More important, is the driver ready for an emergency stop?

VENDOR/ICE CREAM TRUCK—Very simple. This is a person struck by a vehicle while going to or from a street vendor. As might be expected, this category hits nationwide peak during the summer, but remains a year-around threat in mild climates. Example: 5% of the total schoolage accidents in Los Angeles involve ice cream trucks. In most cases, the children are struck after the ice cream purchase on the near side by the vendor.

MULTIPLE THREAT—A vehicle has stopped in one traffic lane to allow a pedestrian to cross. A second vehicle, going in the same direction, approaches in another traffic lane. The pedestrian, who continues walking, cannot be seen by the approaching driver since the stopped vehicle blocks the line of sight. The pedestrian is struck after stepping out in front of the stopped vehicle.

(Data from Pedestrian Safety Branch, National Highway Traffic Safety Administration.)

Anything more maddening than jaywalkers? Maybe jaywalkers carrying doors in the middle of your street.



Pedestrians sometimes act as if those painted lines on the pavement were protective barriers made of concrete and steel, guaranteeing that vehicles will stop. The young girls here could move a lot faster, but every driver knows they'll poke along at a snail's pace, holding up traffic.

(below, left to right)
A typical street scene. The driver is completely ignoring the pedestrians. In heavy traffic, this sort of thing moves from ordinary rudeness up to a threat to life and limb.

POOF . . . In this series of photographs, Maj Gen John S. Pustay, commander, Keesler Technical Training Center and Col Lester R. Terrell, 3380th Air Base Group commander, experience the air bag system. If a car equipped with the air bag device was involved in a serious frontal crash into a solid barrier, the sudden impact would cause the air bags to inflate instantly to cushion the occupants from striking the interior of the car. The cushions fully inflate and partially deflate in about 1/25th of a second.

(USAF photos by SSgt Boyd Belcher)

AIR BAG preview

Have you ever tried to imagine how it would feel to be in a collision while driving a car equipped with air bags?

Don Albright of the Technical Training Center Safety Office at Keesler AFB figured a lot of people were curious about the bags so he arranged a demonstration at his base. So far as we know, Keesler is the first Air Force installation to put on such a demonstration.

About 3,000 people visited the air bag and passive seat belt show. For the air bag demo pictured here, Maj Gen John S. Pustay and Col Lester R. Terrell took to the front seat of a specially equipped 1977 model car. An explanatory tape presentation preceded the actual inflation in which both men were enveloped in the gas-filled bags. Their reactions? Nothing but praise for the system.

For demonstration purposes, the inflation was shown 50 times slower than the actual 1/25th of a second deployment.

Keesler people who saw the show represented every point of view about restraints, from "I don't want anything confining me" to "I was saved by my belt once and now I never fail to use it." But the air bags were a different matter. Most observers were greatly impressed. Some said they would have air bags in their next car regardless of cost. Others felt the bags were simply too expensive (about $112 minimum now).

Of course, a few people showed up with rigid negative opinions about air bags: That they could not be relied upon to open in a collision, or that they might inflate without reason and so cause an accident. These fears are without foundation, according to the federal government, auto manufacturers, and insurance companies, all of which have done extensive testing of the air bags.

Incidentally, the auto industry trade journal, **Automotive News,** voted the government requirement for air bags in new cars (beginning in September 1981) as the most important car story of 1977.

Detroit is less than enthusiastic about the government rule. Automotive marketing departments predict new-car sales will shoot through the ceiling in 1979-1980 if the government sticks with

its bag edict. The manufacturers predict millions of car buyers will not take kindly to the idea of paying an extra couple of hundred dollars for air bags and there will be a beat-the-bag rush to sign up for a new car before the law takes effect.

Detroit thinks by the mid-1980s drivers will be in a real revolt against the bags, not because of the initial expense but because of the high cost of replacing the air bag once it has been deployed (estimated now at $600) plus higher insurance costs to cover replacement costs.

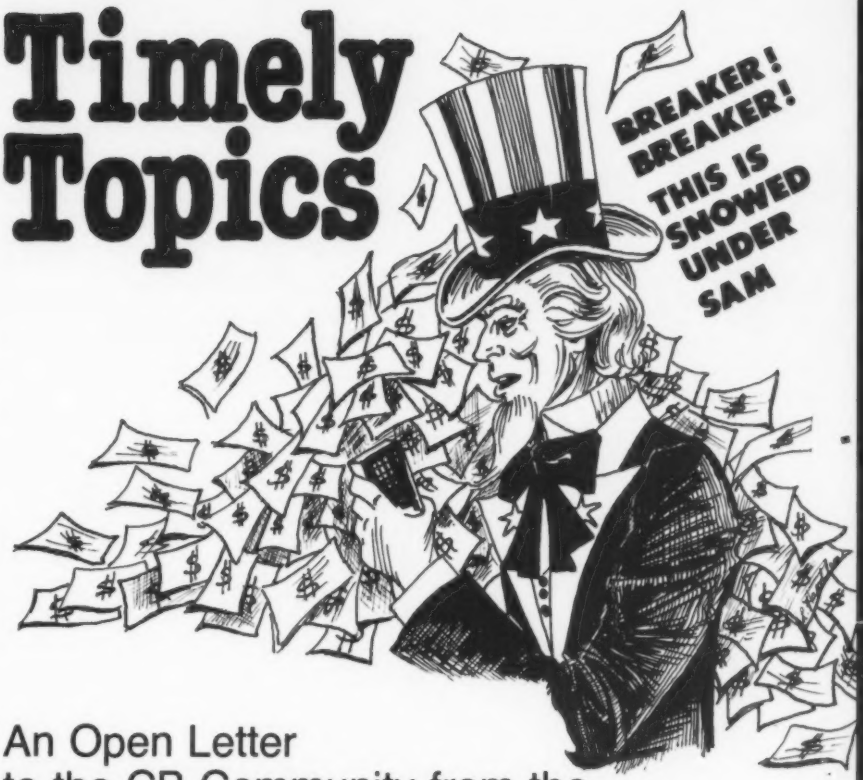
On the other hand, people who have been involved in accidents in an air-bag-equipped car, although not numerous, are most enthusiastic about the protective quality of the bags. One Chicago physician, whose life was saved by an air bag when he collided with a bus, has become a one-man publicity campaign for air bag installation. So it's just possible that once motoring Americans have some experience with the bags—designed to keep one's body away from the deadly steering wheel, windshield and dashboard in a frontal collision—they will refuse to do without them, regardless of possible costs. What do you think?

No matter how things develop in the next few years, Don Albright had a great idea in providing so many people with a firsthand look at the air bags as well as the "passive" seat belt.

NIFTY . . . Tsgt John Walter, 3386th School Squadron Instructor, examines the Volkswagen Rabbit's passive restraint seatbelt system. The system is designed to move into place as each front door seat occupant enters the vehicle and closes the door. There is no buckling action required of the passenger or driver.

(USAF photo by SSgt Denise Cornella)

Timely Topics



An Open Letter to the CB Community from the Federal Communications Commission

Will you help us solve a problem?

We are being flooded with CB fees that we must return.

On 1 Jan 1977, the Federal Communications Commission suspended collection of all fees, including those for Citizens Band Radio licenses.

At that time, we urged CB applicants to stop sending in the $4.00 fee. We thought the message had been received, because fees dropped to a comparative trickle. Now, they're rolling in again. We are on the way to being swamped with money that we must return. It's complicating our ability to get CB licenses processed.

Some folks think they can help us by sending in the fee, even though it is not required. Others are confused because millions of old CB applications and temporary permits are still around asking for the $4.00 fee. We need to tell each new CB applicant that the fee is no longer required.

You can help us and every CBer by spreading the word again. DO NOT SEND MONEY—DO NOT SEND CASH, MONEY ORDERS, OR PERSONAL CHECKS—FEES ARE NOT REQUIRED WITH CB LICENSE APPLICATIONS.

About Motorcycles

- Decorative accessories added to a helmet can alter the structural integrity if holes are drilled in the helmet. If decorations are not flexible or breakaway, they also can add to the danger in case of a crash.
- When a cyclist has been injured in a spill or collision, care must be exercised in removing his helmet so neck injury is not caused. Two persons should be involved. One places his hands inside the helmet to hold the head rigid. The other pulls the helmet open and removes it.
- Recent investigations in three states—California, Wisconsin and Maryland—show that half of all motorcyclists killed in traffic accidents have alcohol in their systems.

Electrical system fusing and basic electrical problem guide

Don't overlook the obvious when you're troubleshooting. Corrosion of any wiring junction or connection is bad news, but if it's at the battery terminals it can cause problems in all other circuits.

The text makes mention of fusible links. These links are nothing more than different-gauge wire inserted in the circuit wiring. If the fusible link blows, replace it with the same gauge wire and not an in-line fuse.

As we mentioned in the previous installment, the electrical system in your car is similar to that in your home. They both have a voltage source, wiring, mechanical connections, and some sort of circuit-protecting device.

The method most often used in both systems is the fuse, or fusible link. Circuit breakers are found in a few automotive electrical systems, but in many cases, they are not resetable like those in your house.

If you carry replacement fuses in your car and you know where the fuse box is located (courtesy of your handy owner's manual) the job of handling a blown fuse is relatively simple.

Correcting the trouble that caused the fuse to blow in the first place may not always be so easy, however.

The fuses used in an automotive electrical system are not the same type as those usually found in your house. They are small and cartridge shaped, and fit into clips or in-line holders. Finding which fuse is blown is usually

FUSES & circuit control DEVICES

easy. If the back-up lights go out, for instance, merely look for the appropriate label on the fuse block (or box). If the labels are not readable, or if the inop device is part of a larger circuit and not specifically listed on the block, visual appearance should give you a clue. If glass-cased fuses blow, they may take on a cloudy or blackened look inside the glass. Sometimes, the metal element inside the glass case will just separate and not leave any deposits on the glass. Look closely (after removing all rings, watches, etc.) at the fuse in question. If the glass is clear and you don't see any silver-colored wire, or if the glass is blackened, that's the one. Be careful though, because some fuses use extremely fine wire and unless you examine them very closely, they could appear to be blown.

Once you find the bad fuse, you must remove it from the holder. If it is the in-line type, you merely unscrew the two halves of the holder and remove the fuse. If it is in a fuse block, it will be held in by two metal clips. Don't attempt to remove this kind with a screwdriver. The metal clips carry current, and the resultant shower of sparks can provide you with a degree of overstimulation that you don't really need. Another thing that may happen is that you could burn out all the wiring associated with the particular circuit and start a marvelous under-dash fire at the same time. Gently pry the fuse out of the holder with a popsickle stick or plastic rod, but don't use a metal prying device.

Better yet, give yourself a break and buy one of those inexpensive plastic fuse pullers from your friendly BX service station.

Once you have removed the blown fuse (or at least the one you suspect is bad) you must replace it with the correct type and size. We can't over-emphasize this point too much. Replacing fuses with ones of incorrect rating can lead to more trouble than you had when you started. A fuse of greater capacity than is needed may damage the unit it is supposed to protect.

As we mentioned in the previous installment, the single-wire system is usually used in automobiles. With this system, a single wire delivers the current, and the metal chassis and body components bring it back to the battery. With the switch on a car lamp closed, the circuit to and from it is complete and the lamp will light. If a connection to the lamp loosens, or becomes corroded or begins to chafe, resistance is set up in the circuit, heating occurs, the lamp burns dimly, and if the wiring grounds the battery will discharge. Heavy discharge readings on an ammeter would warn of this, but if a warning light is used in place of the ammeter (as is the case with most cars) a very heavy short would be required to cause the warning lamp to glow.

If a simple circuit like this is protected with a fuse, however, any of the conditions mentioned above will cause the fuse to blow, and thus break the circuit.

To locate the cause of the blown fuse, always check wiring terminals for tightness first. Look for spots where a wire may be rubbing against metal.

continued

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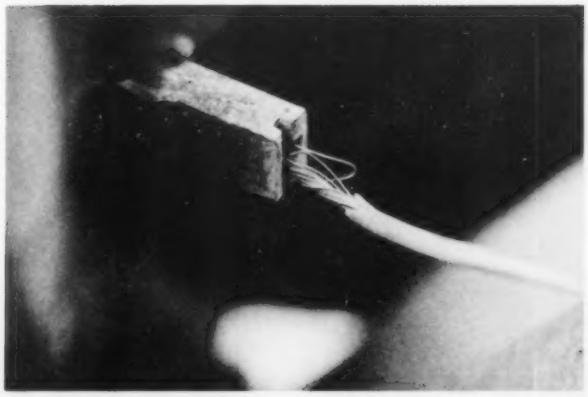


(left) The ol' "grind the battery cable on the fan belt" trick. If this doesn't get replaced or at least taped, starting circuit trouble is on the way. **(right)** There are a couple of problems here. One is the obvious hazard of bare wire close to metal components, and the other is that it's a great place for corrosion to get started.

For instance, if any of the light bulbs fail to work but the bulbs are known to be OK, then the problem can be traced to a blown fuse and replacement will restore the circuit. If the second fuse blows, the trouble lies somewhere else in the circuit.

A vibrating circuit breaker (like the one used in the headlight circuit) usually means a short which you must find and correct. To do this, disconnect the switch wires one at a time until the vibration stops; this is the line in which you will find the trouble.

Except in very old cars and trucks, fuses have seldom been used for headlight circuit protection. On many older cars, lamp circuits are protected by a thermostatically-controlled limit relay or a bi-metal circuit breaker, usually attached to the light switch. On most late model cars, all circuits except the headlights have been removed from the circuit breaker line and fitted with separate fuses.

The entire battery system on today's cars is protected by "fusible links." A fusible link is nothing more than a piece of wire that is spliced into a circuit in which the wiring is one or two standard thicknesses larger. For example, a piece of 14-gauge wire is spliced into a circuit composed of 10-gauge wire. This link is often covered by a plastic sheath of special shape, to aid in identification.

If the circuit is overloaded, the higher number (thinner) wire burns out and separates, just like a fuse element.

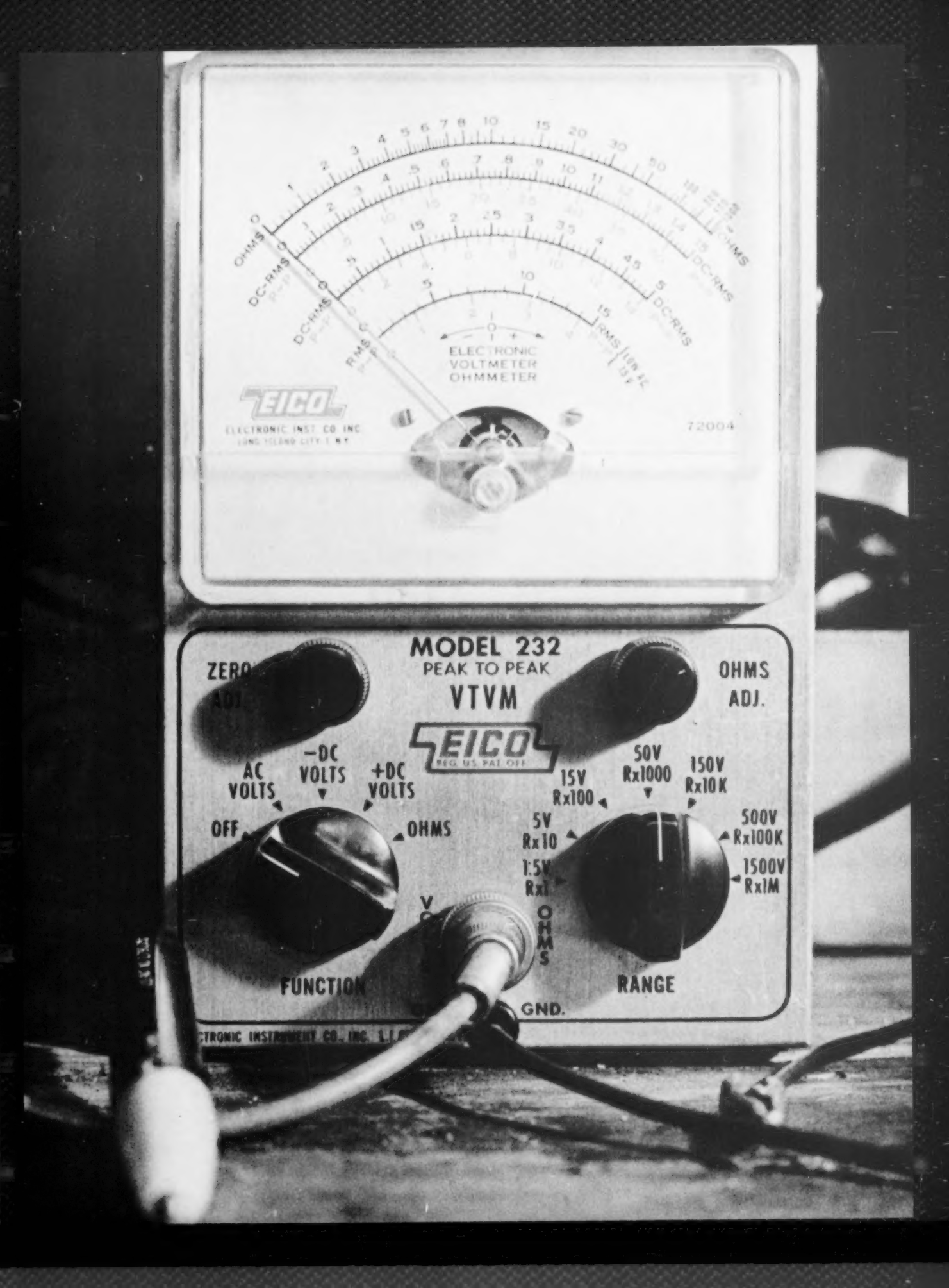
The location of these links varies according to the make of car. On late-model Chevrolets (except Corvette), there is a 16-gauge fusible link to protect all unfused wiring of 12-gauge or thicker. The link is located at or near the horn relay.

If a fusible link blows, the repair (after correcting the cause) is to splice in a new piece of wire of the appro-

continued

Your handy-dandy jumper cable kit. It's not for jump-starting dead batteries but for troubleshooting circuits. Remember that connection of a jumper in a live circuit will result in sparks. It's best to wire in the jumper and THEN apply power to the circuit.

(right)
A troubleshooter's best friend . . . a voltmeter/continuity tester. A meter this expensive isn't needed by the average backyard mechanic and cheaper ones suitable for automotive troubleshooting (6- and 12-volt DC scale, ohms function, and AC volt scale) are available for less than $10 from Sears, Radio Shack, etc.


MODEL 232
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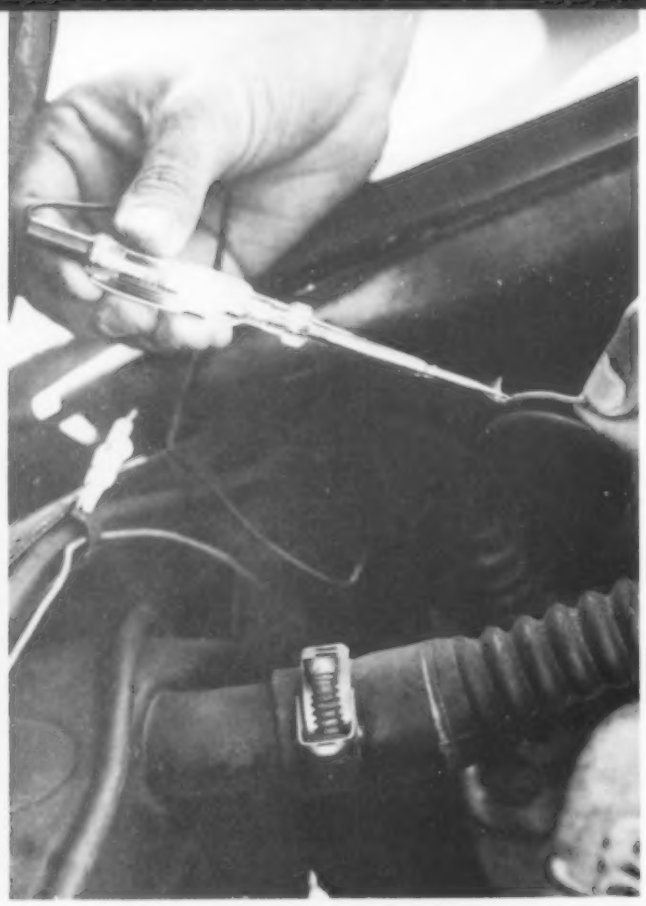
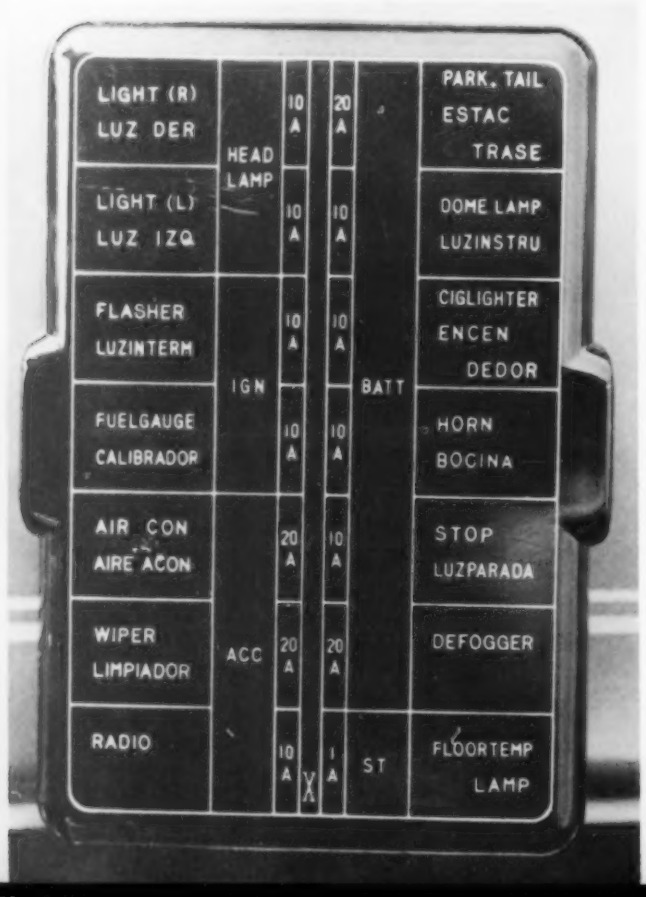
VTVM
EICO
REG. U.S. PAT. OFF.
ELECTRONIC
VOLTMETER
OHMMETER
ELECTRONIC INST. CO. INC.
72004
ZERO ADJ.
OHMS ADJ.
AC VOLTS
-DC VOLTS
+DC VOLTS
OFF
OHMS
FUNCTION
15V Rx100
50V Rx1000
150V Rx10K
5V Rx10
500V Rx100K
1.5V Rx1
1500V Rx1M
OHMS
GND.
RANGE




LIGHT (R) LUZ DER
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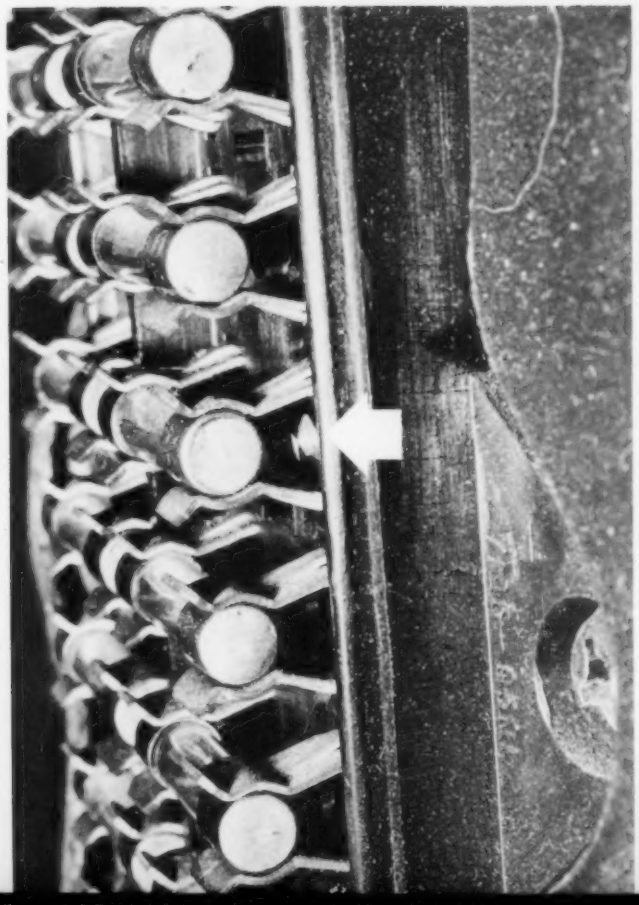


(far left)
Another handy but inexpensive tool to have is this voltage probe. It won't give voltage readings, but it does light up when voltage is present.

(near left)
Fuse box locations vary from car to car, but many times the box will be on the passenger side of the car near or under the dash. On most American cars, the directional signal flasher will be incorporated in the box by means of a plug-in socket.

priate gauge, solder or crimp-connect the terminals, and cover the splice with electrical tape or shrink tubing.

Remember that the circuits in cars are like those in your home . . . if you have too many lights or appliances on one circuit, a blown fuse will result.

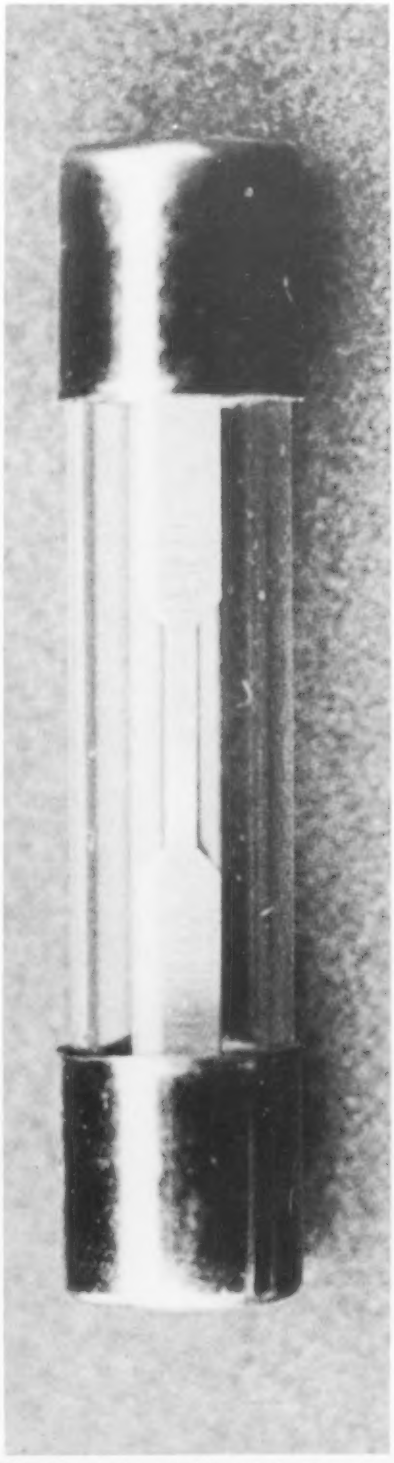
The same thing is true in a car. Using a larger capacity fuse will prevent the fuse from blowing, but you're asking for trouble.

Although troubleshooting can take some sophisticated tools and techniques, some problems are not all that complicated. For instance, if a bulb fails to light, there are really only five possible causes: a bad bulb, a poor connection at the socket or bulb terminal, defective wiring, a defective switch, or a blown fuse.

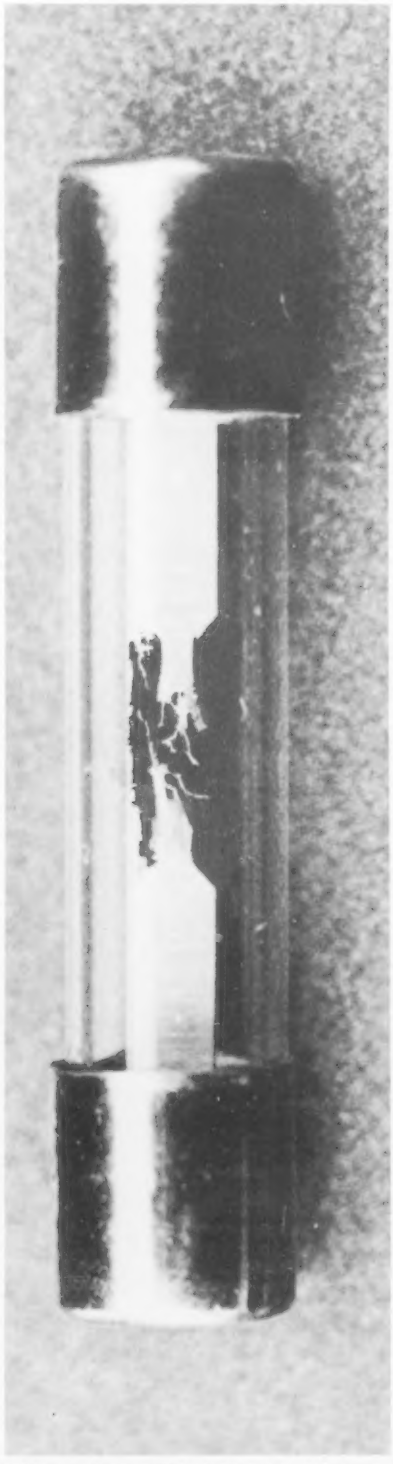
If you use a little bit of logic, most troubleshooting will be as easy as diagnosing a bulb problem. Take your time, use common sense and safe procedures, and you'll be able to get all those electrons going to the right places in your car.

(far left)
Fuse boxes or fuse box covers are normally labeled as to each fuse's function. If the fuse box in your car isn't labeled, your owner's manual should have a diagram giving you the info about which fuse controls which circuit.

(near left)
This close-up shows a factory goof in a new Datsun . . . you may want to check your car for the same problem. Fuse box mounting screw (arrow) protrudes through block and almost makes contact with hot terminal. Even a little vibration could make the connection and quickly fry a circuit.



This is what a good fuse looks like. The metal element inside the glass case is not burned or melted.



A blown fuse will look like this. A brownish or bluish fog inside the glass case also means the fuse is bad.

continued

ELECTRICAL SYSTEM PROBLEM GUIDE

American Motors:

1975—Rough idle or stalling may be caused by induced resistance in the ignition harness. This build-up in resistance at terminals and connectors will cause a miss due to ignition interruption.

1974—Alternators should be equipped with two capacitors to protect against transient voltage which may damage transistors in the voltage regulator. Install an additional 0.5 mfd capacitor with the lead connected to the regulator terminal of the alternator and grounded to the alternator case.

1971-1975—The alternator indicator (idiot) light may glow dimly due to higher-than-normal resistance in the alternator field diode assembly. Replace the diode assembly.

A condition where all lights flicker at low engine RPM can be caused by a defective voltage regulator or alternator.

1974-1975—An inoperative seat belt interlock may be caused by a damaged interlock module due to jumper leads being connected to start relay in an attempt to energize starter motor solenoid.

Chrysler Corp.:

1970-76—Alternator "whine" heard at all levels of radio volume is caused by the electronic voltage regulator. To correct, install a capacitor; p/n 3501598 (info courtesy Chrysler Corp.).

1975—Inoperative instrument lights may be due to disconnected 6- or 12-way connectors feeding instrument cluster.

1975—Erratic horn operation may be caused by improper adjustment of the horn diaphragm tension screw that makes the horn draw very low current.

Ford Motor Company

1972—Thunderbird and Lincoln Mark IV models may have the ignition by-pass and ignition resistor wires installed into the wrong connectors, resulting in ignition points burning at low mileage.

1971—Models with 302" or 351"W engines have a distributor breaker cover made of metal, and a no-start condition may occur if the coil or condensor terminals contact the cover due to incorrect positioning.

1970-71—There may be a dieseling (run-on) problem on models equipped with throttle solenoid positioner and alternator indicator light. The positioner may be energized through the alternator indicator light, and this requires that a diode be installed in the light circuit.

1974—Engines with electronic ignition may have rough operation above idle due to crossed wires in the distributor-to-module engine harness.

1973—Low or no alternator output can be caused by electric choke wire shorting to the choke tube.

1973—Torino and Montego models may have a red-yellow wire from the seat belt buzzer coming in contact with a light green-red wire from the alternator warning light circuit. This can cause the alternator indicator light to stay on even though there is no alternator malfunction.

1970—There is the possibility of battery overcharge on models equipped with electro-mechanical voltage regulator. Another possibility is that the overcharge could have resulted from incorrectly-wired alternator-regulator connectors.

1976—Radio noise may exist on some early models due to an inadequate ground at the capacitor mounted on the ignition coil.

General Motors

Buick:

1970-75—If the alternator (idiot) light remains on with the ignition switch off, check for a shorted positive diode in the alternator's diode bridge. If the light remains on with the engine running, the wire to the alternator No. 1 terminal may be grounded.

1975—An incorrect fuel gauge reading can be caused by an intermittent open circuit in the dash-to-tank unit due to a loose contact at the dash's connector.

Chevrolet:

1970-75—No-start condition can be caused by loose or defective wiring between neutral-start switch and ignition switch, a burned fusible link in the starting circuit, or a poor terminal connection between energizer, horn relay, ignition switch, neutral-start switch, solenoid "S" terminal, or energizer ground cable.

1974-75—A no-start problem could be encountered because of an improperly installed battery ignition wire at the distributor cap (HEI system only).

1970-75—Slow cranking may be due to loose or defective wiring between energizer and engine block or solenoid "BAT" terminal.

1974—A battery that won't charge may be due to a wire omitted in the wiring harness that runs from the alternator connector to the bulkhead connector.

Pontiac:

1974-75—A no-start condition may be encountered in some models due to the pink battery ignition wire running to the distributor cap. The wire connector could have been installed with the harness terminal on the wrong side of the black distributor cap terminal.

1970—A short plunger in the glove box light switch may allow the switch to remain activated even though the glove box door is closed. This can result in the battery going dead for no apparent reason.

1972—When using the "battery post adapter" method of measuring alternator performance, you may obtain a low output reading. This is caused by the heater/AC motor running whenever the ignition key is in the "on" position.

(General Motors Products Diagnostics Reprinted courtesy of Mitchell Manuals Inc.)

BACKFIRE

LETTERS TO THE EDITOR

OVERHEATED ENGINES

I, too, have experienced overheated engines in the past. It dawned on me, while towing my boat through the mountains, that the passenger compartment heater derives its heat from the engine cooling system. Since then I have merely turned on the heater and have never experienced a too-hot engine again. Of course, it gets almost unbearably hot inside so it becomes necessary to roll down the windows.

CWO3 R. A. Nashif
USS John Paul Jones (ADG-32)
FPO San Francisco 96601

Our research indicates that in most late-model cars the added capacity of the heater just isn't enough to remove the amount of heat that needs to be removed. With current model engines operating in the range of 230 to 250 degrees, generally, the best procedure for newer cars is the one outlined in our Jul '77 article. That is, stop the car and wait for the engine to cool down before removing the radiator cap and slowly adding water. Adding water to the overflow tank will speed cool-down and sometimes fill the radiator without having to remove the cap. Closed systems caps can be a bear to get off if they have not been removed for some time.

MOTORCYCLE SAFETY GEAR

I am an avid motorcycle rider and wish to commend you on your articles concerning motorcycle safety. I read with interest and some disappointment the article in your May '77 issue on required safety gear in each state. I had hoped that by now the legislators in all states would have figured out that a protected rider has a much better chance of surviving an accident.

Since laws are made to protect the people, why not make safety gear such as helmets, eye protection, mirrors on both sides, and safety inspections mandatory in all states? These people will not protect themselves so why not protect them from themselves? I personally would like to see tougher legislation all around concerning motorcycles and their riders.

I ride a bike that I try to maintain in safe condition, and I wear as much protection as I can. I know that I'm not the only person who feels this way, as evidenced by your continued interest in safety on these two wheelers, and I'm sure that the concerned riders of all states will welcome safer laws and conditions.

Sgt David M. Osgood
6970th ABGp
Ft George G. Meade, MD 20755

I truly enjoyed your article on motorcycle safety and especially the use of protective clothing when riding a motorcycle. Had I not had on my helmet and proper clothing, I'd be pretty well scarred up today.

This particular incident took place in June of 1976. I had just gotten off work and was riding my motorcycle home when I had to stop for a traffic light. I was the first one near the intersection in the right-hand lane. Suddenly there was a loud screeching noise behind me. Not realizing exactly where the noise was coming from, I assumed somebody's car was sliding to a stop in the left-hand lane. There was a jeep behind me whose brakes had failed momentarily and with the resultant force rear-ended my motorcycle.

The next thing I knew I was flying backwards off the bike, then forward and over the bike. I remember clearing the fairing (Windjammer) and flying through the air about 50 feet. At that moment I remembered a course in motorcycle training that recommended relaxing and rolling with the punch if being hit while on a motorcycle. As I descended towards the ground, I cushioned my landing by falling on my hands and elbows in a rolling pattern. Out of all this, I just sprained my index finger and was none the worse for wear.

The reason I feel I wasn't hurt more seriously was because I had on a leather coat, gloves, jeans, boots, and a helmet. Also, the motorcycle was equipped with a backrest, crash bars (front and rear), and a luggage rack.

When the jeep impacted the motorcycle, it hit the luggage rack. This caused me to slide backwards. Whenever I stop at a traffic light, I always put my gear selector in neutral to keep me from accidentally releasing the clutch in case something happens.

When I slid backwards the backrest prevented me from sliding off the bike and into the grille of the jeep. The backrest bent backwards with such force that it flipped me forward, over the fairing, past the intersection, and on the other side of the street. During this flying tour, I cleared two cars coming in the opposite direction. The motorcycle traveled through the intersection and fell in front of a very large truck (18 wheeler). The truck driver slammed on his brakes and stopped within 3 feet of the bike. The only damage done to the bike was a bent luggage rack and crash bars.

I felt both of us were pretty lucky that day. I had on all my protective equipment and the motorcycle's protective equipment protected the bike. I hate to think what could have happened if I didn't.

Maybe this little incident will show others the importance of wearing proper clothing and above all a helmet! They do their job when needed – before, not after!

SSgt Herman T. Dolison
940th CAM Sq
Mather AFB, CA 95655

You are both right. There is nothing like being protected. Better safe than sorry!

FRONT BRAKES ON MOTORCYCLES

I am writing in reference to your article, "The Safest Way to Crash . . . DON'T," (Sep '77).

Due to the fact that a few years ago I had a rather flipping experience over my front brake while trying to stop, I got the idea that front brakes were good only for stopping while rolling backwards down hills and doing handstands! So I took the liberty of disconnecting my front brake and it has been that way for the last two years.

Now that I have read your article, I feel like a fool for doing what I did. I thank you very much for the best, most well prepared and factual article on motorcycle braking I have ever read.

continued

It might make me live longer and also many of my biker friends who are also scared of that front brake.

I have reconnected my front brake.

EN/FN Roch A. Waltenbaugh
1st Lt NAVSTA OOD Box 4
Subic Bay RP
FPO San Francisco 96651

REAR BRAKES ON MOTORCYCLES

I have always enjoyed the excellent articles in the "Backyard Mechanic" section of DRIVER Magazine. The rest of the magazine is equally interesting and informative.

A recent issue concerning motorcycle braking was very timely. Just a few days after reading the article, I had to lock the rear brakes to prevent a collision. I was prepared for the rear wheel travel and fought the impulse to let up on the brake. It was a lot easier on the bike and my body than my previous thoughts of laying the bike down.

Lt Robert W. Poirier
CSTSC Code 54
Mare Island
Vallejo, CA 94592

HINTS AND CAUTIONS

Liked your article on charging and starting circuits (Oct '77). A couple of hints and cautions are in order though.

On Ford and AMC products with the solenoid on the fender wall or fire wall there are four terminals – two heavy gauge and two light gauge. Don't try to short the two heavy ones with a plain piece of wire as it will get very hot very fast. Use a good quality jumper cable with insulated handles. One of the smaller terminals goes to the ignition switch and the other to the ignition coil. To test the solenoid, hook a jumper from the heavy gauge terminal that is connected to the battery and hook the other end to the small terminal connected to the ignition switch.

On the "bright lights, no cranking" paragraph, listen carefully for a clicking sound when you try to start. If you do hear it, you've got an open circuit from the output of the solenoid to the starter input, a bad set of contacts in the solenoid, or a defective starter (open internally). If you don't get any clicking, the open is between the ignition switch and the solenoid, or an open solenoid coil.

I hope this info will help someone and would like to compliment you on a great publication.

Amn Eugene E. Buettner, Jr.
96 FMS/AGE
Dyess AFB, TX 79607

MOTORCYCLING IN JAPAN

As the newly assigned Traffic Safety Chief for Commander Fleet Activities Yokosuka (Yokosuka Naval Base), I was reading through some back issues of DRIVER and noticed, with some dismay, a letter in the "Backfire" column from a Petty Officer Houston stationed on one of the ships under my purview. In this letter the Petty Officer states, "250cc and above motorcycles are Class I vehicles, Class I vehicles are entitled to full lane usage, two Class I vehicles may not occupy the same space in a lane at the same time, therefore it is illegal to pass on the left, but Japanese Police will not stop a biker passing on the left. However, if an accident occurs, the biker is automatically at fault and this fact is not taught in any Traffic School in the Japan area."

Either Petty Officer Houston did not pay attention or slept through the Traffic Safety Lecture he is required to attend prior to receiving his Private Vehicle license.

First off, and I am only basically aware of the safety programs at other stations, Marine Corps Air Station, Iwakuni and Air Force Base Yokota both have highly comprehensive motorcycle training and testing programs. Naval Radio Receiving Facility Kamiseya and Naval Base Yokosuka have a similar motorcycle safety course (16 hours classroom and riding course). All of these courses make two things very clear: (1) passing on the left is illegal and (2) riding abreast is illegal.

Until recently, the extreme left one meter of traffic lane was designated a 125cc and below motorcycle lane. All others were allowed full lane usage. Accidents occurring in this lane *do not* automatically make the biker at fault. The existence of this legal motorcycle lane is impressed upon everyone obtaining or renewing a private vehicle or motorcycle license since Nov '75 at Fleet Activities Yokosuka.

Recently, it was learned that this motorcycle lane was abolished. Motorcycles were put into two categories, 1 to 50cc and 51cc and above. It is still illegal to pass on the left; however, traveling in a straight line on the left of traffic is not considered passing as long as you do not move from behind a vehicle, overtake on the left and regain your lane in front of the vehicle overtaken. It is the responsibility of a four-wheel-vehicle driver to insure that his vehicle or passengers do not cause accidents with motorcycles traversing the left side of traffic. Additionally, vehicles in Japan are put into three categories: Class I – Non-commercial vehicles and all motorcycles; Class II vehicles – commercial vehicles and Light Vehicles. Light vehicles consist of hand-drawn carts, non-motorized cycles, etc.

As of 1 Oct 77, the 16-hour motorcycle safety course was made mandatory for all motorcycle licensing, in addition to an 8-hour "On Base Only" safety class. During early Nov, Commander Fleet Activities, Yokosuka, Traffic Safety Office, was honored with the presence of Petty Officer Jim Leinneweber, USS AJAX (AR-9), who is a certified Motorcycle Safety Foundation instructor, and who conducted a five-day National Safety Course for our senior instructor and a cross section of 14 other male, female, non-rider, novice and experienced riders on motorcycles ranging from a 90cc trail bike to a 1200 superglide, with exceptional results.

With the current emphasis on training and safety, it behooves all riders to become involved with their base safety programs. They will be surprised at how much they don't know about "Getting in the Wind" safely and properly.

SMC George A. Winstead, USN
Office of Provost Marshal
U.S. Fleet Activities
Traffic Safety Section
FPO Seattle, WA 98762

Thank you for enlightening us and our readers on the laws and programs of motorcycling in Japan.

Address your letters to:
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☆U.S. GOVERNMENT PRINTING OFFICE: 1978—783-116/102

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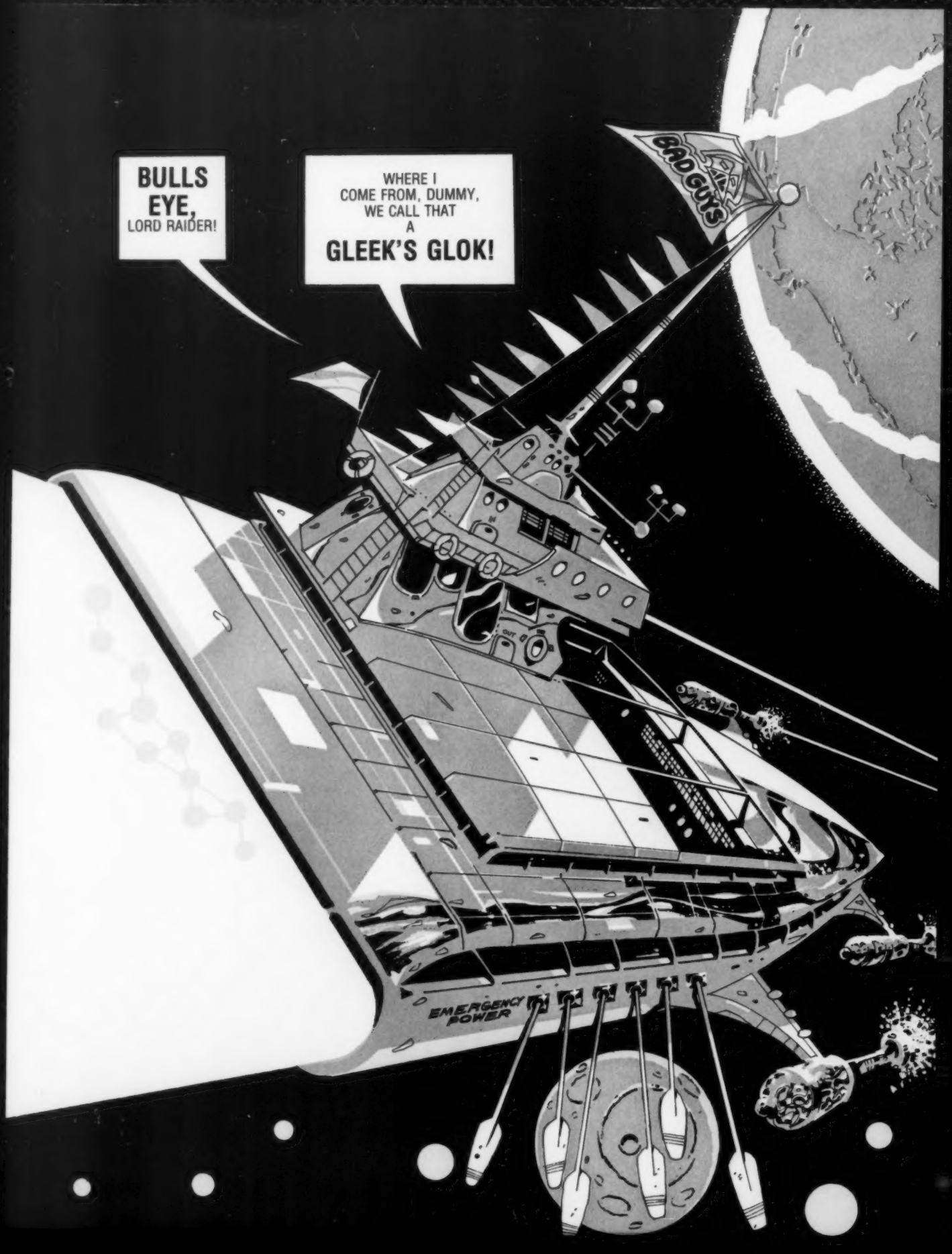
BULLS EYE, LORD RAIDER!
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